

REMARKS

Claims 1 through 21 are now pending in the application. Claims 1, 2, 4, 5, 7, 10, 11, 14-17, 19 and 20 are herein amended. Claim 22 is herein canceled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The specification stands objected to for certain informalities. Applicant has amended paragraphs [0001] and [0004] of the specification according to the Examiner's suggestions. Therefore, reconsideration and withdrawal of these objections are respectfully requested.

In addition, Applicant has amended paragraph [0037] to correct the percentages identified for diameter d1 compared to diameter d2. Support for this amendment is provided in the 4th sentence of paragraph [0037] where it is identified that diameter d1 is preferably larger than diameter d2. The originally identified percentages of 30% and 70% of diameter d2 would clearly make diameter d1 smaller than diameter d2. The Examiner is respectfully requested to enter the amendment to paragraph [0037].

REJECTION UNDER 35 U.S.C. § 112

Claims 1 through 22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

It is initially noted Claim 22 has been herein canceled, rendering the 35 U.S.C. § 112, second paragraph rejection of Claim 22 moot.

Claims 1, 2, 4, 5, 7, 10, 11, 14, 16, 19 and 20 have been amended herein based on the Examiner's suggestions. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 112, second paragraph rejection of Claims 1, 2, 4, 5, 7, 10, 11, 14, 16, 19 and 20. Because Claims 3 and 6 depend from amended Claim 1, Claims 8-9, 12-13 and 15 depend from amended Claim 7, and Claims 17-18 and 20-21 depend from amended Claim 16, the Examiner is respectfully requested to withdraw the 35 U.S.C. § 112, second paragraph rejection of Claims 3 and 6, Claims 8-9, 12-13 and 15, and Claims 17-18 and 20-21.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 through 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by LaPointe (U.S. Pat. No. 5,147,108). This rejection is respectfully traversed.

It is initially noted Claim 1 has been amended herein to recited in part:

“a spring with a first end attached to the toggle link and a second end directly and slidably engaging the support shaft, whereby the second end is slidable along a substantially circular-shaped, unobstructed portion of the tubular-shaped support shaft and parallel with an axis defined by the support shaft to align the spring thereon.”

Support for this amendment is found in paragraphs [0029], [0030], [0031] and [0037] of the specification.

In direct contrast to Applicant's mechanism, LaPointe '108 discloses two springs 214 each indirectly connected to a support shaft (reinforcement rail 76) by first and second brackets 216, 219. LaPointe '108 does not disclose that either bracket 216 or 219 is slidable along the reinforcement rail 76. Springs 214 appear to be adjustable only by motion which is generally front to back with respect to the chair (left/ right as viewed in Figures 5 and 6), by manually repositioning spring 214 in Figure 5 to one of 3 stepped slots of bracket 219, or by manually adjusting a wing nut 217 to adjust the spring 214 of Figure 6.

Neither of springs 214 are directly and slidably engaged with the reinforcement rail 76 as required by amended Claim 1. In addition, both of the two springs 214 appear to be incapable of sliding movement along a substantially circular-shaped, unobstructed portion of and parallel to an axis of reinforcement rail 76.

LaPointe '108 therefore does not disclose "a spring with a first end attached to the toggle link and a second end directly and slidably engaging the support shaft, whereby the second end is slidable along a substantially circular-shaped, unobstructed portion of the support shaft and parallel with an axis defined by the support shaft" as recited in amended Claim 1.

LaPointe '108 therefore cannot anticipate amended Claim 1. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claim 1. Because Claims 2-6 depend from Claim 1, LaPointe '108 cannot anticipate Claims 2-6 for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claims 2-6.

It is also initially noted Claim 7 has been amended herein to recited in part:

“a spring with a first end attached to the toggle link and a second end directly and slidably engaging the support shaft, whereby the second end is slidable along a substantially circular-shaped, unobstructed portion of the support shaft and parallel with an axis defined by the support shaft to align the spring thereon.”

Support for this amendment is found in paragraphs [0029], [0030], [0031] and [0037] of the specification.

For at least the same reasons as noted above with respect to Claim 1, LaPointe '108 cannot anticipate amended Claim 7. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claim 7. Because Claims 8-14 depend from Claim 7, LaPointe '108 cannot anticipate Claims 8-14 for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claims 8-14.

Claims 1 through 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by LaPointe (U.S. Pat. No. 5,975,627). This rejection is respectfully traversed.

LaPointe '627 discloses a spring 224 is connected to a C-shaped over-center connecting link 220 which is itself rotatably pinned using a pivot 218 to over-center drive link 212. See column 11, lines 27-30. Springs 224 are therefore precluded from sliding with respect to square drive link 212. As further shown in Figure 8, the opposite ends of

springs 224 are connected to spring retaining tabs 99 of horizontal flange 98. See column 11, lines 31-35. A portion of springs 224 (approximately 2 turns) clearly overlap the left edge (as viewed in Figure 8) of horizontal flange 98. This can only be possible if a recess or shoulder area of spring retaining tabs 99 is present. The geometry of spring retaining tabs 99 therefore appears to preclude sliding motion of springs 224 with respect to horizontal flange 98. Further, spring retaining tabs 99 are apparently created from a portion of the horizontal flange 98 which is defined as part of an "L-shaped frame rail" 36, (See column 5, lines 25-27), and therefore do not have a substantially circular shape. There is therefore no substantially circular-shaped, unobstructed portion of horizontal flange 98 upon which springs 224 can slide. There is also no disclosure in LaPointe '627 to support motion of springs 224 which could induce a sliding motion at spring retaining tabs 99.

LaPointe '627 does not disclose a spring with a first end attached to the toggle link and a second end directly and slidably engaging the support shaft, whereby the second end is slidable along a substantially circular-shaped, unobstructed portion of the support shaft and parallel with an axis defined by the support shaft to align the spring thereon, as recited in amended Claims 1 and 7.

In direct contrast to LaPointe '627, Applicant's support shaft 28 includes a diameter d2 (see paragraph [0037]) thereby defining a substantially circular shape. A portion 60 of the support shaft 28 directly and slidably receives the hooked end 54 of spring 52. LaPointe '627 does not disclose this geometry for slidably receiving its spring(s) 224.

LaPointe '627 therefore cannot anticipate amended Claims 1 or 7. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claims 1 and 7. Because Claims 2-6 depend from Claim 1, and Claims 8-15 depend from Claim 7, LaPointe '627 cannot anticipate Claims 2-6 or 8-15 for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 102(b) rejection of Claims 2-6 and 8-15.

REJECTION UNDER 35 U.S.C. § 103

Claims 16 through 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over LaPointe (U.S. Pat. No. 5,147,108). This rejection is respectfully traversed.

In direct contrast to Applicant's mechanism, LaPointe '108 teaches two springs 214 each indirectly connected to a support shaft (reinforcement rail 76) by first and second brackets 216, 219. LaPointe '108 does not teach or suggest that either bracket 216 or 219 is slidable along the reinforcement rail 76 and appears to teach in Figure 9 that both brackets 216, 219 are prevented from sliding motion by a connecting element (un-numbered) which is pinned to the bracket and then separately pinned into a slot created in a separate stabilizer rail 74. Springs 214 appear to be adjustable only by motion which is generally front to back with respect to the chair (left/ right as viewed in Figures 5 and 6, by manually repositioning spring 214 in Figure 5 to one of 3 stepped slots of bracket 219, or by manually adjusting a wing nut 217 to adjust the spring 214 of Figure 6.

LaPointe '108 does not teach or suggest slidably engaging a second end of the spring directly to a substantially circular-shaped, unobstructed portion of the support shaft. Neither of springs 214 are directly and slidably engaged with the reinforcement rail 76 as required by amended Claim 16. In addition, both of the springs 214 appear to be incapable of sliding movement along a substantially circular-shaped, unobstructed portion of and parallel to an axis of reinforcement rail 76.

LaPointe '108 therefore does not teach or suggest “slidably engaging a second end of the spring directly to a substantially circular-shaped, unobstructed portion of the support shaft whereby the second end is slidable along an axis defined by and parallel to the support shaft to align the spring thereon” as recited in amended Claim 16.

The suggested modification of LaPointe '108 therefore cannot render amended Claim 16 obvious. The Examiner is requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 16. Because Claims 17-21 depend from Claim 16, the suggested modification of LaPointe '108 cannot render Claims 17-21 obvious for at least the same reasons. The Examiner is requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 17-21.

Claims 16 through 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over LaPointe (U.S. Pat. No. 5,975,627). This rejection is respectfully traversed.

It is again noted Claim 22 has been canceled herein, rendering the 35 U.S.C. § 103(a) rejection of Claim 22 moot.

LaPointe '627 appears to teach that ends of springs 224 are connected to spring retaining tabs 99 of horizontal flange 98. See column 11, lines 31-35. A portion of springs 224 (approximately 2 turns) clearly overlap the left edge (as viewed in Figure 8) of horizontal flange 98. This can only be possible if a recess or shoulder area of spring retaining tabs 99 is present against which the end coils of springs 224 abut, which would preclude sliding motion of the springs. The geometry of spring retaining tabs 99 therefore appears to preclude sliding motion of springs 224 with respect to horizontal flange 98. Further, spring retaining tabs 99 are apparently created by machining or stamping out a portion of the horizontal flange 98 which is defined as part of an "L-shaped frame rail" 36, (See column 5, lines 25-27), and therefore do not teach or suggest a substantially circular shape. There is therefore no teaching or suggestion of a substantially circular-shaped, unobstructed portion of horizontal flange 98 upon which springs 224 can slide. There is also no teaching or suggestion in LaPointe '627 to support a force induced in springs 224 which could then induce a sliding motion at spring retaining tabs 99.

In contrast to Applicant, LaPointe '627 appears to teach that springs 224 are non-slidably connected to spring retaining tabs 99 and are not free to slide along a substantially circular-shaped, unobstructed portion of spring retaining tabs 99. LaPointe '627 therefore does not teach or suggest slidably engaging a second end of the spring directly to a substantially circular-shaped, unobstructed portion of the support shaft whereby the second end is slidable along an axis defined by and parallel to the support shaft to align the spring thereon, as recited in amended Claim 16.

The suggested modification of LaPointe '627 therefore cannot render amended Claim 16 obvious. The Examiner is requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 16. Because Claims 17-21 depend from Claim 16, the suggested modification of LaPointe '627 cannot render Claims 17-21 obvious for at least the same reasons. The Examiner is requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 17-21.

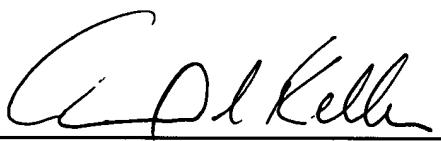
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Sept. 21, 2005

By:



Paul A. Keller, Reg. No. 29,752
Thomas J. Krul, Reg. No. 46,842

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

PAK/TJK/mmk